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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|----------------------------------|-------------|----------------------|---------------------|------------------|
| 09/839,179 | 04/19/2001 | Kenneth James Barker | RAL919990168US1 | 1524 |
| 25299 | 7590 | 03/19/2004 | EXAMINER | |
| IBM CORPORATION | | | CHANG, ERIC | |
| PO BOX 12195 | | | ART UNIT | |
| DEPT 9CCA, BLDG 002 | | | PAPER NUMBER | |
| RESEARCH TRIANGLE PARK, NC 27709 | | | 2116 | |
| DATE MAILED: 03/19/2004 | | | | |

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | |
|------------------------------|-----------------|---------------|
| Office Action Summary | Application No. | Applicant(s) |
| | 09/839,179 | BARKER ET AL. |
| | Examiner | Art Unit |
| | Eric Chang | 2116 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 19 April 2001.
 2a) This action is **FINAL**. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-5 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 1-5 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on 19 April 2001 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
 * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

| | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 2. | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____. 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) 6) <input type="checkbox"/> Other: _____. |
|---|--|

DETAILED ACTION

1. Claims 1-5 are pending.

Claim Objections

2. Claim 4 is objected to because of the following informalities: The limitations of the claim are unclear due to grammatical errors, especially with regard to the relationship between operating speed, and its selection and power consumption thereof. Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-5 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by U.S.

Patent 5,805,597 to Edem.

5. As to claim 1, Edem discloses a method of conserving power consumption in a communication system which includes components capable of selectively entering a low power mode and an auto-negotiation feature by:

[a] exchanging messages indicative of a low power mode capability [col. 13, lines 18-

22];

[b] using an auto-negotiation feature to interpret exchanged signals to verify that connected systems include the low power mode capability [col. 13, lines 21-23]; and

[c] transmitting a signal that a communications session is completed to cause connected systems to enter the low power mode [col. 13, lines 23-25].

Edem teaches a transmitting device on the network uses an auto-negotiation protocol to indicate that it desires to enter a low power mode, and receives a message from the receiving device that it is also capable of entering the low power mode. If the exchange indicates that both devices support a low power mode, the devices will enter a low power mode, substantially as claimed.

6. As to claim 2, Edem discloses the auto-negotiation feature is a next-page facility [col. 12, lines 37-55].

7. As to claim 3, Edem discloses a further step of employing the auto-negotiation feature further to verify that the connected systems are eligible to enter the low power mode [col. 13, lines 11-25].

8. As to claim 4, Edem discloses a system utilizing a data communication device having a plurality of data exchange modes, each of said modes operating at different speeds and power consumption levels, protocol means for compatibly coupling said data communication device to

another data communication device for exchanging data therebetween, and selection means in said data communication device operating in a high speed mode to switch to a different speed mode that consumes less power during an idle period by:

- [a] exchanging data representative of said data communication devices ability to operate at the least power consuming speed [col. 13, lines 18-23];
- [b] decoding via said protocol means said representative data [col. 13, lines 11-25]; and
- [c] changing to said least power consuming speed in response to another protocol signal [col. 13, lines 23-25].

Edem teaches the method to conserve power, including using auto-negotiation to verify the ability to enter a low power mode, and having the devices enter a low power mode thereafter, substantially as claimed. Furthermore, Edem teaches that the full power mode has a greater bandwidth than the low power mode [col. 19, lines 51-55]. Therefore, Edem teaches that the higher transmission speed consumes more power, substantially as claimed.

9. As to claim 5, Edem discloses a method for conserving power consumption during periods of low usage by using a next-page aspect of the auto-negotiation feature to communicate among terminal data equipment each equipment's capability to assume a low power mode, the method comprising:

- [a] detecting periods of low network usage [col. 8, lines 44-67, and col. 9, lines 1-6];
- [b] verifying in response to detection of low network usage that each equipment is eligible to assume the low power mode by use of the auto-negotiation feature [col. 13, lines 11-25]; and

[c] asserting signals to put each eligible equipment in a low power mode of operation

[col. 13, lines 23-25].

Edem teaches the method to conserve power, including using auto-negotiation to verify the ability to enter a low power mode, and having the devices enter a low power mode thereafter, substantially as claimed. Furthermore, Edem teaches that such an attempt to enter a low power mode occurs when network traffic has decreased to a limited level [FIG. 11, element 211].

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric Chang whose telephone number is (703) 305-4612. The examiner can normally be reached on M-F 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Lee can be reached on (703) 305-9717. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ec



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